

CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

1. **(Currently Amended)** A system, comprising:

a filter operable to receive an input signal comprising a first number of channels and further operable to communicate an intermediate output signal comprising a second number of channels less than the first number of channels, wherein at least a portion of the filter is formed on an integrated circuit **so as to dissipate a plurality of undesired channels associated with the input signal in elements of the integrated circuit such that at least a portion of the undesired signals are not reflected back to a transmitter of the input signal**; and

a tuner coupled to the filter and operable to receive the intermediate output signal and further operable to communicate an output signal comprising a third number of channels less than the second number of channels, wherein at least a portion of the tuner is formed on the integrated circuit.

2. **(Original)** The system of Claim 1, wherein:

the first number of channels is greater than one-hundred;

the second number of channels is less than forty; and

the third number of channels is less than three.

3. **(Original)** The system of Claim 1, wherein:

the first number of channels comprises a plurality of bands of channels; and

the filter comprises a plurality of stages and is switchable among the plurality of stages to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

4. **(Original)** The system of Claim 1 wherein:

the first number of channels comprises a plurality of bands of channels; and

the filter comprises a plurality of stages, wherein at least one stage is switchable among a plurality of capacitors to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

5. **(Original)** The system of Claim 1, wherein the filter comprises at least one stage comprising:

an inductor;

a first capacitor having a first lead and a second lead, wherein the first lead of the first capacitor is coupled to a lead of the inductor; and

a plurality of capacitors, each of the capacitors having a first lead coupled to the first lead of the first capacitor and a second lead switchably coupled to the second lead of the first capacitor.

6. **(Original)** The system of Claim 5, further comprising a controller coupled to the filter and operable to enable a selected one of the plurality of stages of the filter and further operable to enable selected ones of the capacitors associated with the selected stage.

7. **(Original)** The system of Claim 1, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.

8. **(Original)** The system of Claim 1, wherein the filter comprises an input stage of the tuner.

9. **(Currently Cancelled)** ~~The system of Claim 1, wherein the filter dissipates a plurality of undesired channels associated with the input signal in elements of the integrated circuit such that the undesired signals are not reflected back to a transmitter of the input signal.~~

10. **(Original)** The system of Claim 1, wherein the filter comprises a first filter and further comprising a second filter operable to communicate the input signal to the first filter, the second filter comprising a low-pass filter having an input cutoff frequency higher than 806 MHz.

11. **(Original)** The system of Claim 1, wherein:
the input signal comprises a differential signal; and
the intermediate output signal comprises a differential signal.

12. **(Withdrawn)** A filter for receiving an input signal comprising a first number of channels and for communicating an intermediate output signal comprising a second number of channels less than the first number of channels, the filter comprising a plurality of stages, at least one stage comprising:

an inductor;

a first capacitor having a first lead and a second lead, wherein the first lead of the first capacitor is coupled to a lead of the inductor; and

a plurality of capacitors, each of the capacitors having a first lead coupled to the first lead of the first capacitor and a second lead switchably coupled to the second lead of the first capacitor.

13. **(Withdrawn)** The filter of Claim 12, wherein the at least one stage is formed on an integrated circuit.

14. **(Withdrawn)** The filter of Claim 12, wherein:
the first number of channels comprises a plurality of bands of channels; and
the filter is switchable among the plurality of stages to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

15. **(Withdrawn)** The filter of Claim 12, wherein:
the first number of channels comprises a plurality of bands of channels; and
the at least one stage is switchable among the plurality of capacitors to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

16. **(Withdrawn)** The filter of Claim 12, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.

17. **(Withdrawn)** The filter of Claim 12, wherein:
the input signal comprises a differential signal; and
the intermediate output signal comprises a differential signal.

18. **(Withdrawn)** A method for filtering an input signal, comprising:
receiving an input signal comprising a plurality of bands of channels;
switching among a plurality of stages of a filter to communicate an intermediate output signal comprising a selected one of the plurality of bands of channels, wherein the filter is formed on an integrated circuit;
receiving the intermediate output signal; and
communicating an output signal comprising a subset of the channels from the selected band of channels.

19. **(Withdrawn)** The method of Claim 18, wherein switching further comprises switching among a plurality of capacitors associated with a particular one of the plurality of stages.

20. **(Withdrawn)** The method of Claim 18, wherein receiving the intermediate output signal and communicating the output signal are performed at least in part by a tuner and at least a portion of the tuner is formed on the integrated circuit.

21. **(Withdrawn)** The method of Claim 20, wherein the filter comprises an input stage of the tuner.

22. **(Withdrawn)** The method of Claim 18, wherein:
the input signal comprises a first number of channels;
the intermediate output signal comprises a second number of channels less than the first number of channels; and
the output signal comprises a third number of channels less than the second number of channels.

23. **(Withdrawn)** The method of Claim 22, wherein:
the first number of channels is greater than one-hundred;
the second number of channels is less than forty; and
the third number of channels is less than three.

24. **(Withdrawn)** The method of Claim 18, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.

25. **(Withdrawn)** The method of Claim 18, wherein:
the input signal comprises a differential signal; and
the intermediate output signal comprises a differential signal.

26. **(Currently Amended)** A system, comprising

first means for receiving an input signal comprising a first number of channels and for communicating an intermediate output signal comprising a second number of channels less than the first number of channels, wherein at least a portion of the first means is formed on an integrated circuit **so as to dissipate a plurality of undesired channels associated with the input signal in elements of the integrated circuit such that at least a portion of the undesired signals are not reflected back to a transmitter of the input signal;** and

second means for receiving the intermediate output signal and for communicating an output signal comprising a third number of channels less than the second number of channels, wherein at least a portion of the second means is formed on the integrated circuit.

27. **(Original)** The system of Claim 26, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.